California Regional Water Quality Control Board
North Coast Region

CLEANUP AND ABATEMENT ORDER NO. R1-2001-0108

FOR

INTERNATIONAL PAPER COMPANY
AND
ROSEBURG FOREST PRODUCTS

FOR

MORGAN PRODUCTS, LTD. SITE
ROSEBURG AVENUE
WEED, CALIFORNIA

Siskiyou County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter Regional Water Board) finds that:

1. The Morgan Products, Ltd. site (Site) is located on the western portion of the Roseburg Forest Products (Roseburg) property in the northern portion of Weed, Siskiyou County. The Site is in an area of Weed that has been used for various lumber and wood treatment operations since the early 1900s. The International Paper Company (International Paper) acquired the Morgan Products, Ltd. site in 1958 when International Paper merged with Long Bell Lumber Company, the owner at that time. Roseburg, the current owner of the Site, acquired the Site from International Paper in 1982.

2. International Paper used pentachlorophenol for wood preserving operations at the Site prior to its sale of the Site to Roseburg. International Paper stored pentachlorophenol in underground storage tanks and an aboveground storage tank at the Site. International Paper used pentachlorophenol in a spray booth to treat wood at the Site. Roseburg has not used pentachlorophenol at the Site; however, it continued to store pentachlorophenol in a large tank at the Site after it acquired the Site from International Paper. International Paper and Roseburg are hereinafter collectively referred to as Discharger.

3. Morgan Products Ltd. leased the Site from Roseburg in 1986 and operated a door manufacturing facility thereon. In 1990, Morgan Products Ltd. conducted investigations related to discharges of glue wastes from its door manufacturing operations. Morgan Products Ltd. completed its investigation and cleanup related to the discharge of glue waste; however, its investigation revealed soil contaminated with pentachlorophenol. Pentachlorophenol contamination was found in areas around the underground storage tank, transfer tank, spray booth, glue waste tank, and dip tank.

4. On September 3, 1991, the Regional Water Board staff required Roseburg to investigate the discharges of pentachlorophenol pursuant to Section 13267 of the California Water Code. On October 1, 1991, International Paper informed the Regional Water Board staff that International Paper would be investigating the discharges of pentachlorophenol at Site. On October 3, 1991, Roseburg confirmed that International Paper would be conducting the investigations and cleanup operations related to the pentachlorophenol discharges.

5. International Paper conducted work at the Site in 1991 and found that pentachlorophenol and tetrachlorophenol were present in soils at the Site at levels up to 5,600 mg/Kg (parts-

per-million or ppm) and 300 ppm respectively. Pentachlorophenol and tetrachlorophenol were also present in groundwater at levels of 470 µg/L (parts-per-billion or ppb) and 27 ppb, respectively. The primary maximum contaminant level for pentachlorophenol in drinking water issued by the U.S. Environmental Protection Agency and the California Department of Health Services is 1 ppb. The taste and odor threshold for tetrachlorophenol in water is 1 ppb.

6. Several investigations and interim remedial measures have been conducted at the Site since 1991 by International Paper. Numerous soil borings and approximately 20 groundwater monitoring wells have been installed at the Site. Groundwater monitoring activities have revealed concentrations of pentachlorophenol and tetrachlorophenol in groundwater as high as 190,000 ppb and 9,000 ppb respectively in 1996.

7. In 1996, pentachlorophenol was detected in surface water samples collected downstream of the Site by International Paper. Further sampling and evaluation of the data revealed that groundwater contaminated with pentachlorophenol was entering a cracked section of storm drain made of old vitrified clay pipe. Contaminated groundwater that enters the storm drain is discharged to an unnamed tributary to Boles Creek. In October 1999, an interim remedial action was completed by International Paper to repair a portion of the cracked storm drain piping at the southern end of the Site to inhibit contaminated groundwater from entering the piping. This interim action involved installation of a new section of piping to bypass a section of the old vitrified clay pipe. During this remedial action effort, it was noted that the remaining vitrified clay pipe was in poor condition in the area where the new bypass piping was reconnected and additional failures of the old sections of vitrified clay pipe are likely in the future.

8. During the storm drain repairs in1999, a separate eight-inch vitrified clay sewer pipe broke in the area adjacent to the excavation for the storm drain replacement project. A new section of sewer pipe was installed and the sewage leak was stopped. Approximately two-thousand gallons of sewage leaked into the storm drain during this incident. Due to this incident, additional surface water monitoring was conducted to measure fecal coliform concentrations and evaluate potential impacts the sewage release may have had on downstream water quality. High concentrations of fecal coliform were detected near the incident on the following day; however, the concentrations returned to normal by the following week. Pentachlorophenol monitoring was conducted in addition to the fecal coliform monitoring and pentachlorophenol results showed higher concentrations in surface water then previously detected. Subsequent surface water sampling conducted by Regional Water Board staff and International Paper Company in 2000 confirmed that pentachlorophenol and tetrachlorophenol were discharging to surface waters at higher concentrations than detected prior to completion of the storm drain repairs.

9. Polychlorinated dibenzodioxins and polychlorinated dibenzofurans are contaminants in pentachlorophenol and are carcinogenic and teratogenic substances. The primary maximum contaminant level for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (Dioxin) in drinking water issued by the U.S. Environmental Protection Agency and the California Department of Health Services is 0.00003 ppb. Proposition 65's Drinking Water Level for this contaminant is 0.0000025 ppb. The U.S. Environmental Protection Agency's National Recommended Ambient Water Quality Criteria for Fresh Water Aquatic Life Protection (Lowest Observed Effect Level of Chronic Toxicity) is <0.00001 ppb.

10. The California Water Code, and regulations and policies developed thereunder, require cleanup and abatement of discharges and threatened discharges of waste to the extent

feasible. Cleanup and abatement activities are to provide attainment of background levels of water quality or the highest water quality that is reasonable if background levels of water quality cannot be restored. Alternative cleanup levels less than background are required to be consistent with maximum benefit to the people of the state, not unreasonably affect present and anticipated beneficial use of water, and not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the state and Regional Water Boards.

11. Background groundwater levels for the constituents of concern at the Site are established by considering the background quality of groundwater and surface water (i.e., that water that has not been affected by waste constituents). For the contaminants pentachlorophenol, tetrachlorophenol, polychlorinated dibenzodioxins and polychlorinated dibenzofurans, which are not naturally occurring in groundwater or surface water, background water quality is considered to be at levels below the lowest practical analytical detection limits.

12. The Water Quality Control Plan for the North Coast Region (Basin Plan) establishes beneficial uses of water, and various water quality objectives that exist to ensure protection of those beneficial uses. The most stringent criteria for a waste constituent that is protective of all of the beneficial uses should be selected in determining appropriate cleanup levels. Alternative cleanup and abatement actions need to be considered that evaluate the feasibility of, at a minimum: (1) cleanup to background levels, (2) cleanup to levels attainable through application of best practicable technology, and (3) cleanup to protective water quality criteria levels.

13. The Site is located in the Shasta Valley Hydrologic Area. The Site overlies shallow groundwater less than five feet below ground surface. The beneficial uses of groundwater in the Shasta Valley Hydrologic Area as established in the Basin Plan include:

    a. municipal and domestic supply
    b. agricultural supply
    c. industrial service supply
    d. industrial process supply

14. The Site is located over natural and man made drainage courses tributary to Boles Creek, which is tributary to the Shasta River. The beneficial uses of the Shasta River and Boles Creek as established in the Basin Plan include:

    a. municipal and domestic supply
    b. agricultural supply
    c. industrial service supply
    d. industrial process supply
    e. groundwater recharge
    f. freshwater replenishment
    g. hydropower generation
    h. water contact recreation
    i. non-contact water recreation
    j. commercial and sport fishing
    k. aquaculture
    l. warm freshwater habitat
    m. cold freshwater habitat
    n. wildlife habitat
    o. migration of aquatic organisms
    p. spawning, reproduction, and/or early development

15. Water quality objectives exist to ensure the beneficial uses of water. Numerous beneficial uses of water exist, and the most stringent objective for protection of all beneficial uses is selected as protective for water quality. The following tables set out water quality objectives for this Site:

Groundwater
Water Quality Objectives

Constituent of Concern	Background Level (ug/l)	Water Quality Objective (ug/l)	Citation
Pentachlorophenol	< 0.2	0.43	Cal/EPA Cancer Potency Factor applied to TOXICITY water quality objective in the Basin Plan.
Tetrachlorophenol	< 0.2	1.0	Taste and Odor Threshold per USEPA Red Book applied to the TASTE AND ODOR water quality objective in the Basin Plan
Furan	< 0.0001	7.0	US EPA Integrated Risk Information System (IRIS) Reference Dose applied to TOXICITY water quality objective in the Basin Plan
2,3,7,8-TCDD (dioxin)[1]	< 0.0001	1.3 E-8	USEPA National Ambient Water Quality Criteria Human Health and Welfare Protection Cancer Risk, Sources of Drinking Water; Basin Plan Resolution No. 90-27

[1] Toxicity equivalency factors (TEF) are used to determine the relative toxicity of chlorinated dibenzodioxin (CDD) and chlorinated dibenzofuran (CDF) congeners. The following table represents applicable isomer groups and their associated TEF.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Surface Water
Water Quality Objectives

Constituent of Concern	Background Level (ug/l)	Water Quality Objective (ug/l)	Citation
Pentachlorophenol	variable; site specific data required;	2.4 to 18 dependent on pH	California Toxic Rule Continuous 4-day average for aquatic life protection, applied to the narrative TOXICITY objective in the Basin Plan
Tetrachlorophenol	< 0.2	1.0	Taste and Odor Threshold per USEPA Red Book applied to the TASTE AND ODOR water quality objective in the Basin Plan
Furan	< 0.0001	7.0	US EPA Integrated Risk Information System (IRIS) Reference Dose applied to TOXICITY water quality objective in the Basin Plan
2,3,7,8-TCDD (dioxin)[2]	< 0.0001	1.4 E-8	California Toxic Rule Inland Surface Waters, Human Health 30-day average, aquatic consumption only, applied to the narrative TOXICITY objective in the Basin Plan

16. Discharges of pentachlorophenol, tetrachlorophenol and their associated impurities are in violation of the Basin Plan. The discharge and threatened discharge of wood treatment chemicals and other wastes have unreasonably affected water quality in that the wastes are deleterious to the above described beneficial uses and have created or may create a

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Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

condition of pollution and/or nuisance, which threatens to continue unless the discharge or threatened discharge is permanently abated or cleaned up.

17. Cleanup and Abatement Order No. 94-9 was issued to International Paper Company and Roseburg Forest Products Company on June 6, 1994. Order No. R1-2001-03 rescinds Order No. 94-9.

18. Reasonable costs incurred by Regional Water Board staff in overseeing cleanup or abatement activities are reimbursable under Section 13304 of the California Water Code. In addition, reasonable oversight costs resulting from a leak or spill from an aboveground tank are reimbursable under Section 25270.9 of Chapter 6.67 of the California Health and Safety Code.

19. This enforcement action is being taken for the protection of the environment and, therefore, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15308, Chapter 3, Title 14, of the California Code of Regulations.

THEREFORE, IT IS HEREBY ORDERED that Cleanup and Abatement Order No. R1-2001-03 is hereby rescinded and pursuant to California Water Code Section 13267(b) and 13304, the Dischargers shall cleanup and abate the discharge and threatened discharge of wastes described above and shall comply with the provisions of this Order:

1. The Dischargers shall conduct the investigation and cleanup tasks under the direction of a California registered geologist or registered civil engineer experienced in the area of groundwater pollution cleanup.

2. The Dischargers shall take no action that causes or permits or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into waters of the state and create, or threaten to create, a condition of pollution or nuisance.

3. The Dischargers shall comply with Monitoring and Reporting Program Order No. R1-2001-04 which is attached hereto and made a part of this Order.

4. On or before February 28, 2001, the Dischargers shall submit to the Regional Water Board an onsite soil characterization report based on implementation of the *September 2000 Onsite Soil Characterization Workplan* submitted to the Regional Water Board on September 29, 2000.

5. On or before February 28, 2001, the Dischargers shall submit to the Regional Water Board an as-built report for construction of the interim remedial measures.

6. On or before May 31, 2002, the Dischargers shall submit to the Regional Water Board for Executive Officer concurrence, the final feasibility study for remediation of contaminated soil, groundwater and surface water.

7. On or before July 31, 2002, the Dischargers shall submit to the Regional Water Board for Executive Officer concurrence the Final Remedial Action Plan for remediation of contaminated soil, groundwater and surface water. This plan shall include a time schedule for implementation and expeditious completion of the Final Remedial Action Plan.

8. On or before October 1, 2002, Dischargers shall begin implementing the Final Remedial Action Plan with which the Executive Officer concurred. The Dischargers shall complete implementation of the Final Remedial Action Plan in accordance with the time schedule provided therein.

9. If for any reason, the Dischargers are unable to perform any activity or are unable to submit any document in compliance with the schedule set forth herein or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request must be submitted ten days in advance of the due date and shall include justification for any delay including a description of the good faith effort performed to achieve compliance with the due date. The extension request shall also include a proposed time schedule with new performance dates for the due date in question and all dependent dates. An extension may be granted for good cause, as determined by the Executive Officer in his or her sole discretion, in which case this Order will be accordingly revised.

Ordered by _____

Susan A. Warner
Executive Officer

September 27, 2001

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